

COMMERCE GENERAL ARCHITECTURE

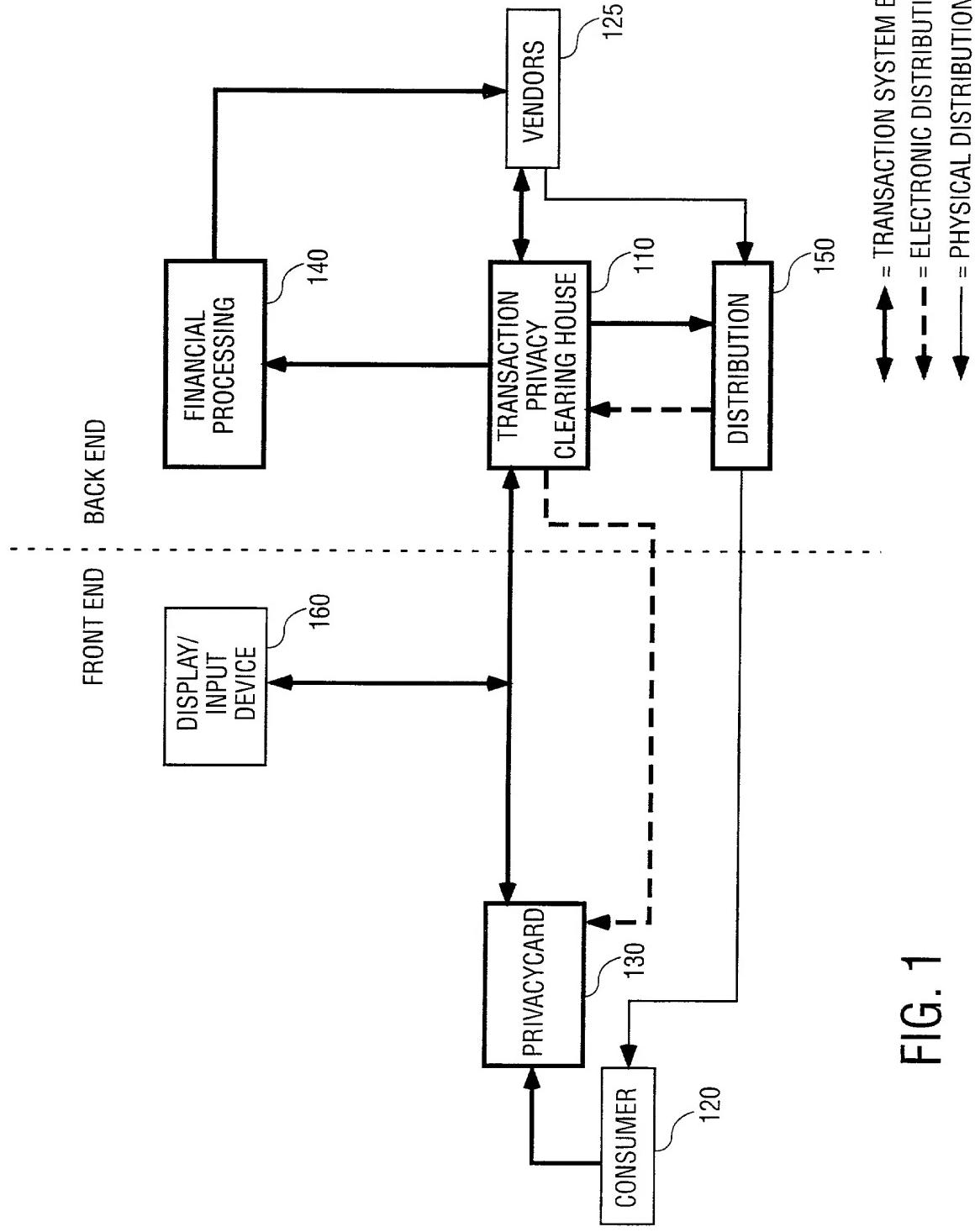


FIG. 1

COMMERCE GENERAL ARCHITECTURE - POS TERMINAL:

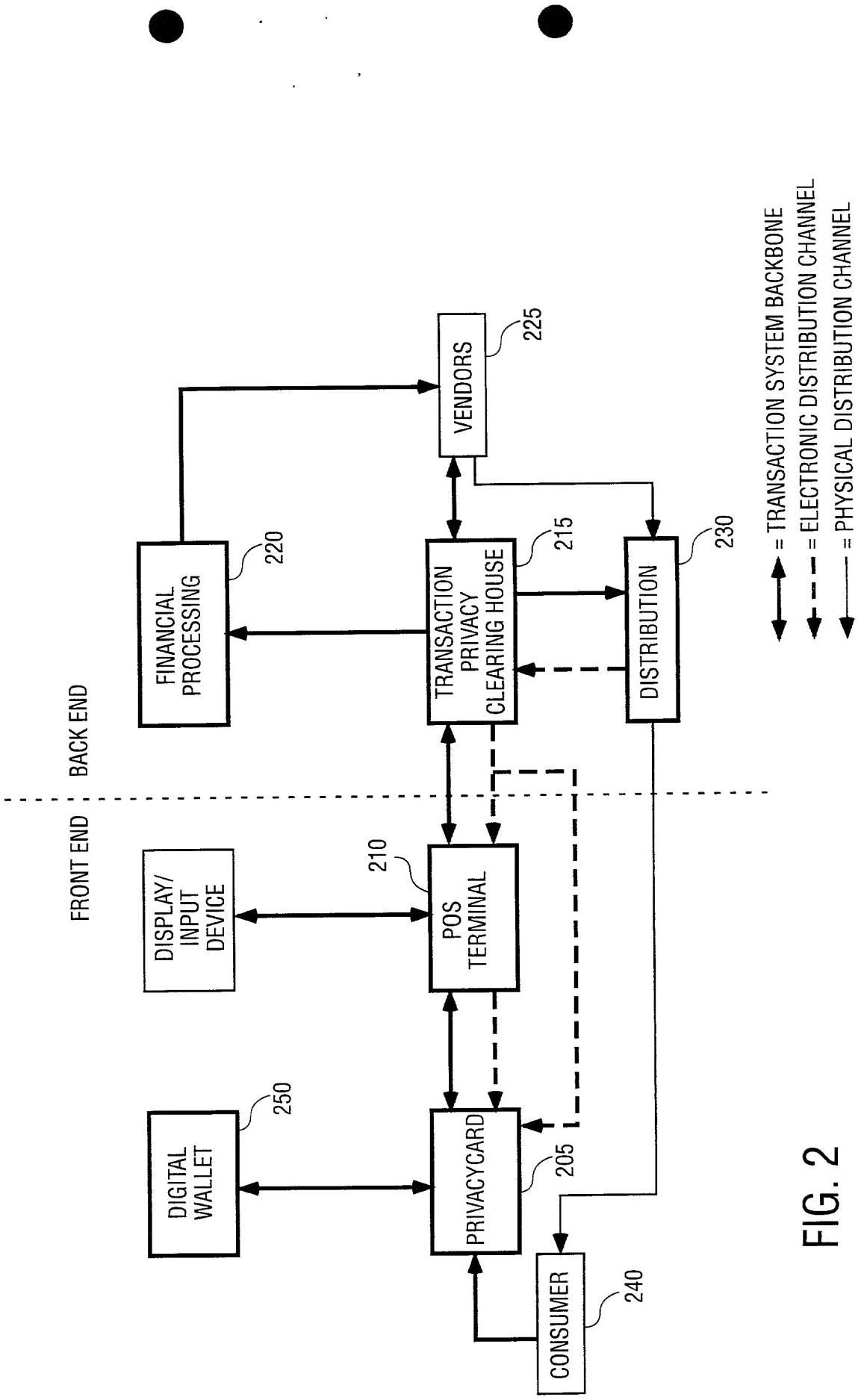


FIG. 2

COMMERCIAL IN-HOME ENVIRONMENT

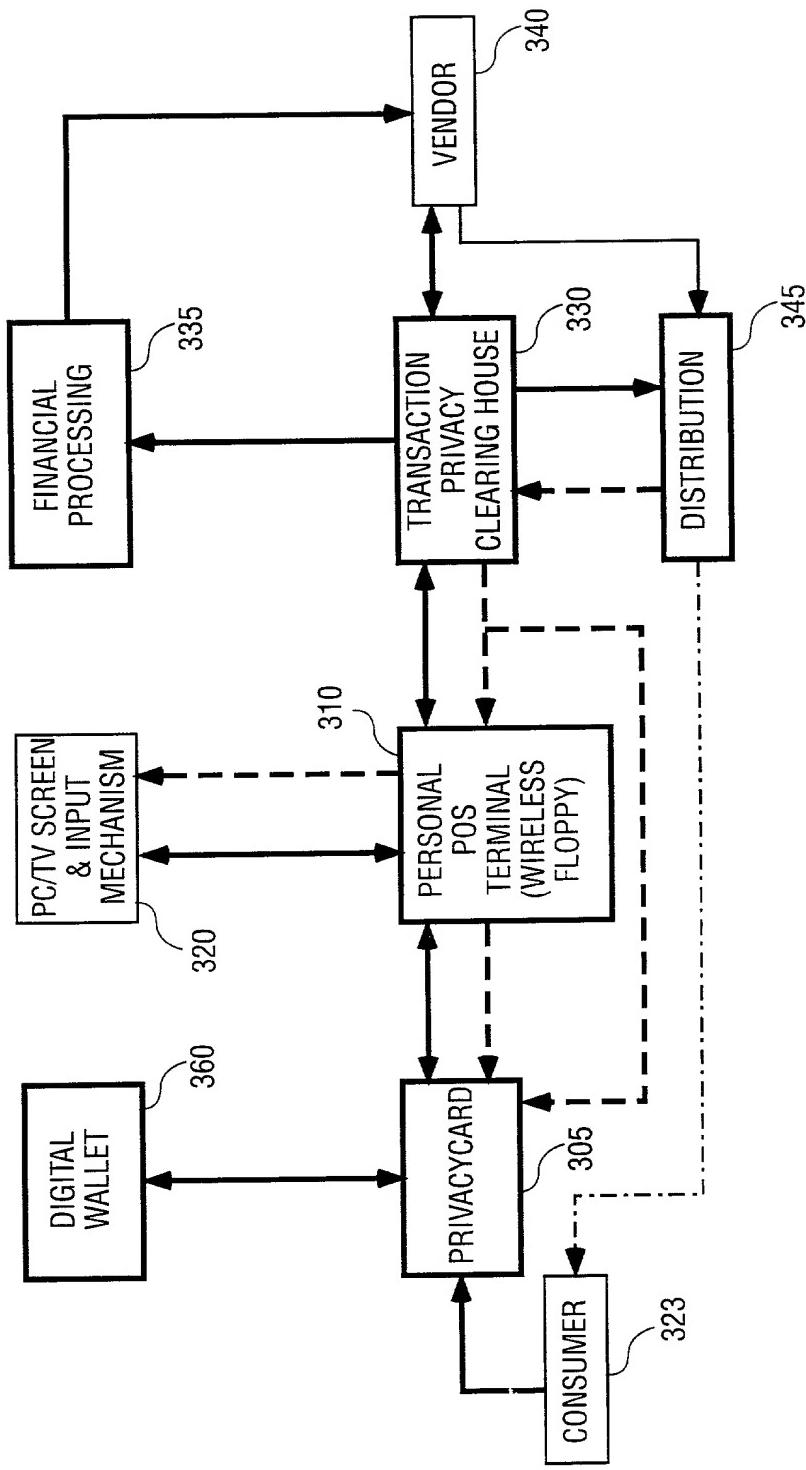


FIG. 3

IN-STORE RETAIL ENVIRONMENT

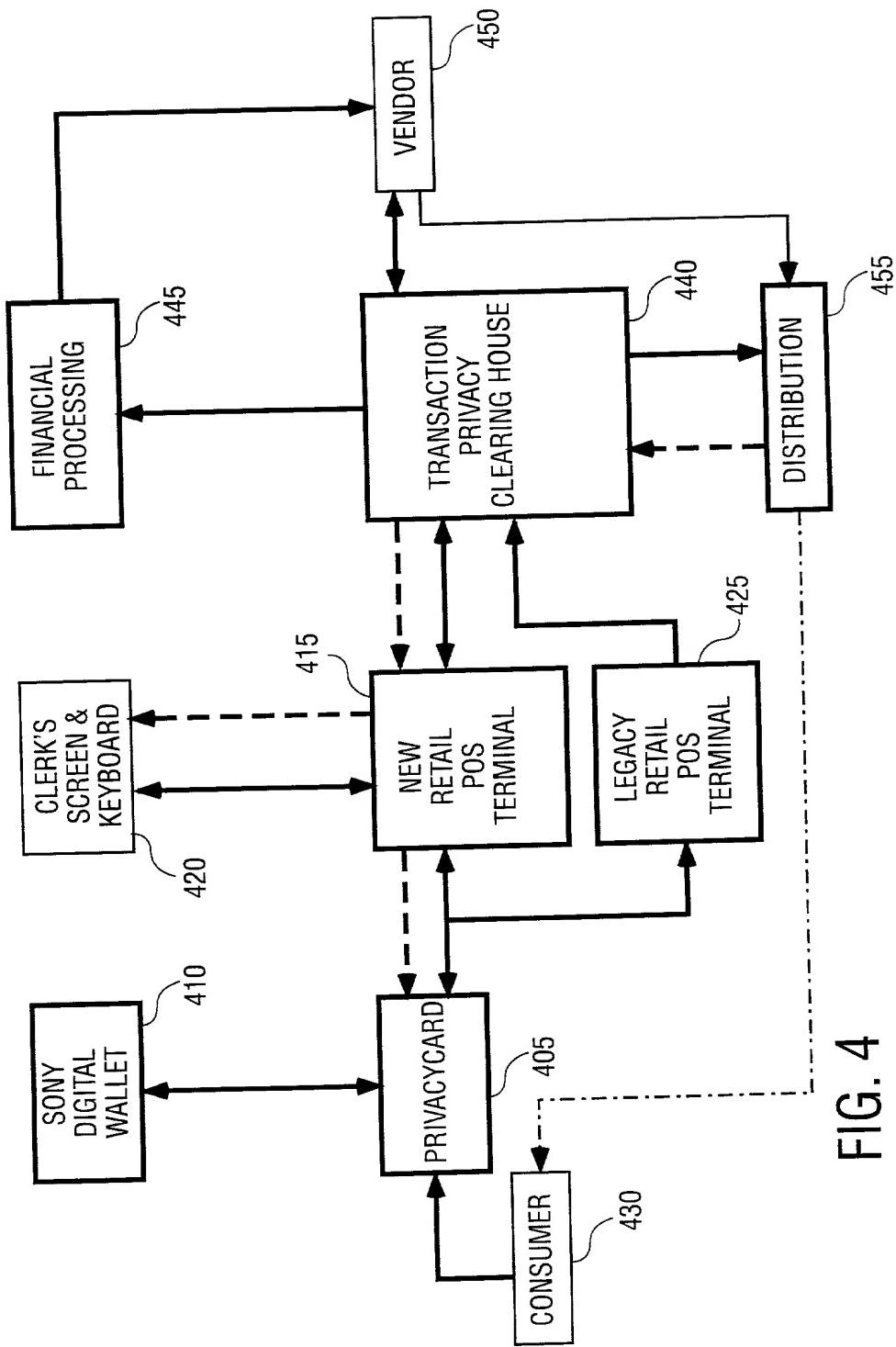
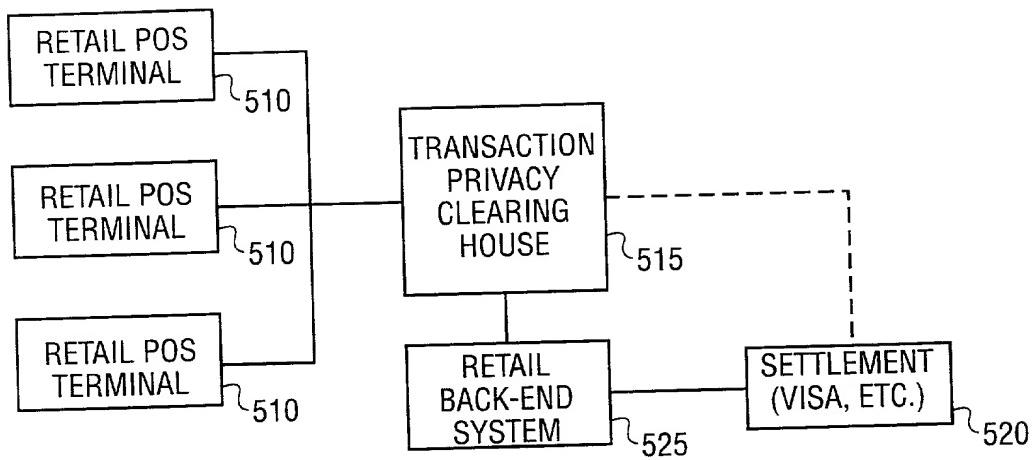
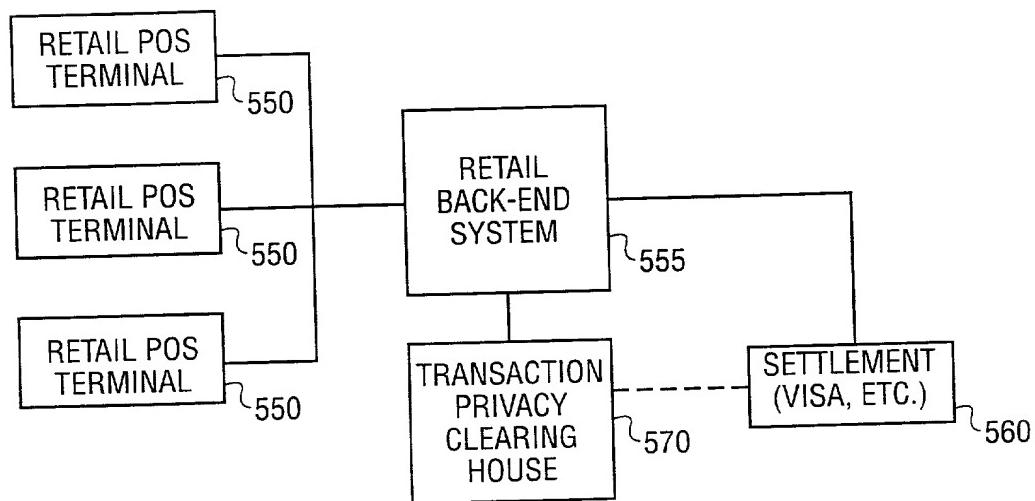


FIG. 4



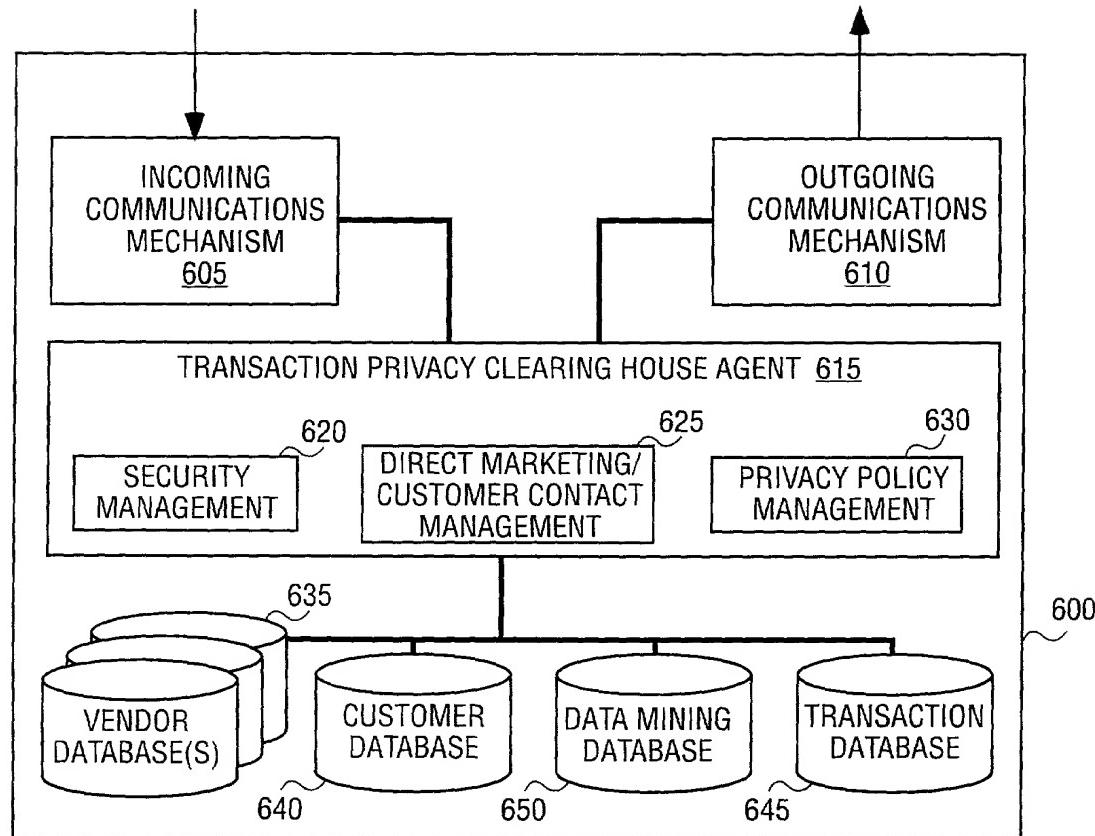
A RETAIL SYSTEM MODIFIED TO
SUPPORT THE INTERACTION OF LEGACY POS TERMINAL WITH
THE DIGITAL WALLET SYSTEM

FIG. 5A



AN ALTERNATIVE EMBODIMENT OF THE RETAIL SYSTEM
MODIFIED TO SUPPORT THE INTERACTION OF LEGACY POS
TERMINALS WITH THE DIGITAL WALLET SYSTEM

FIG. 5B



TRANSACTION PRIVACY CLEARING HOUSE: MAJOR COMPONENTS

FIG. 6

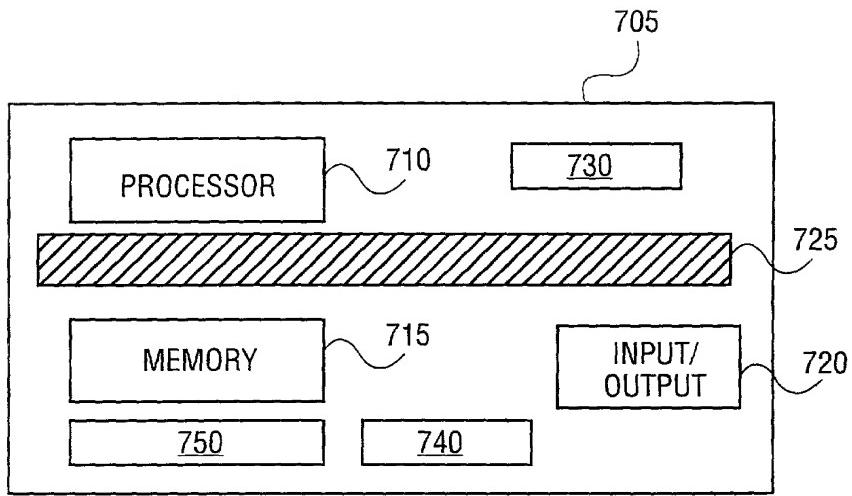


FIG. 7A

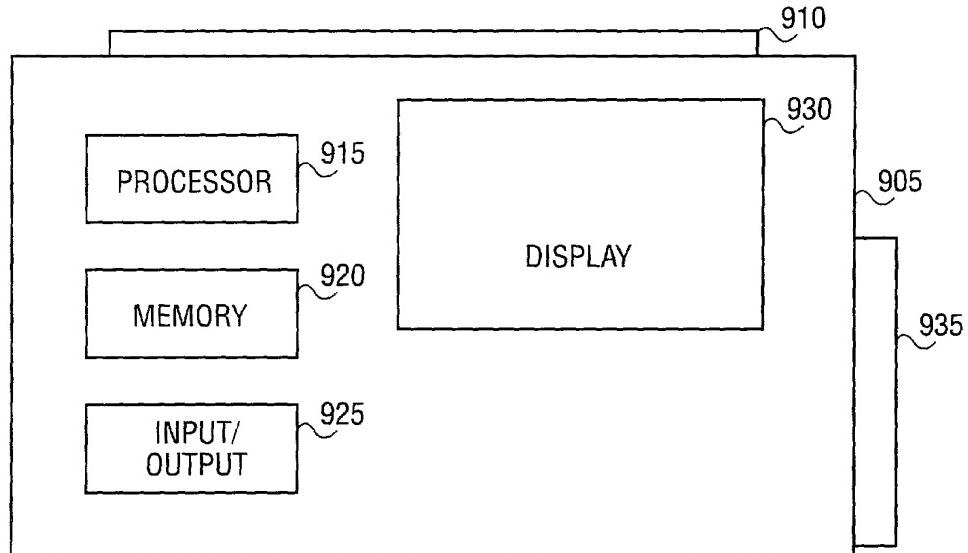


FIG. 9A

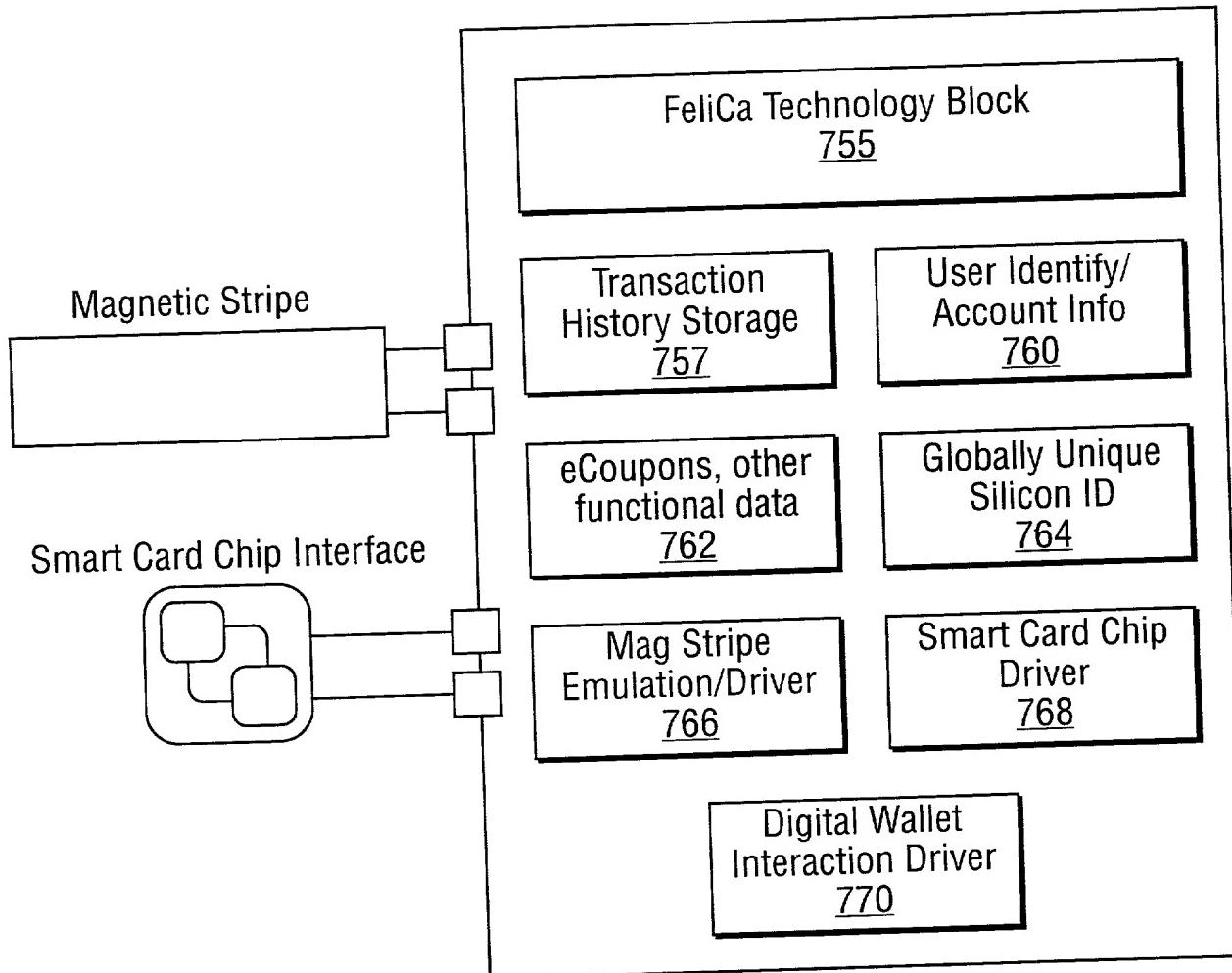


FIG. 7B

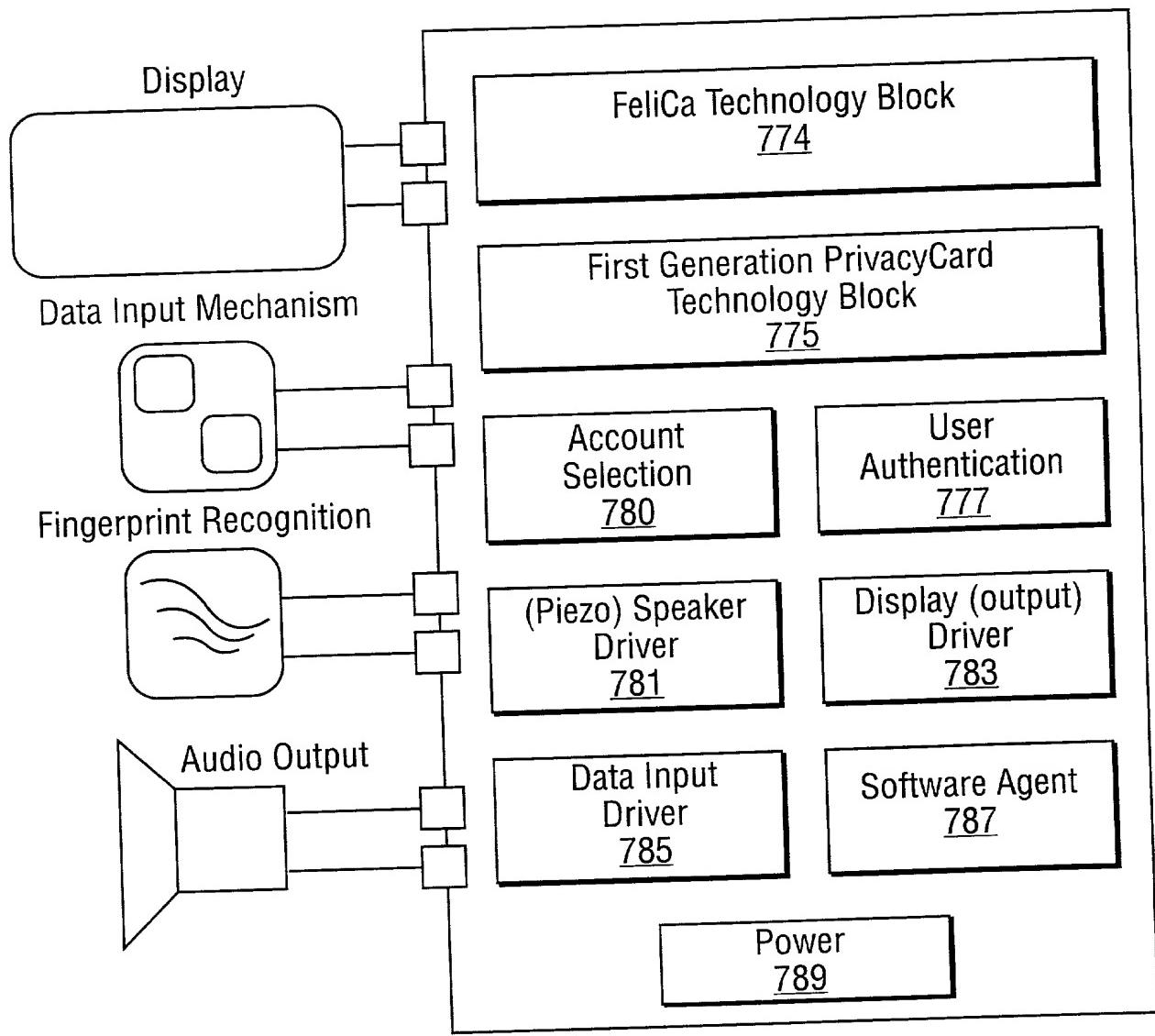
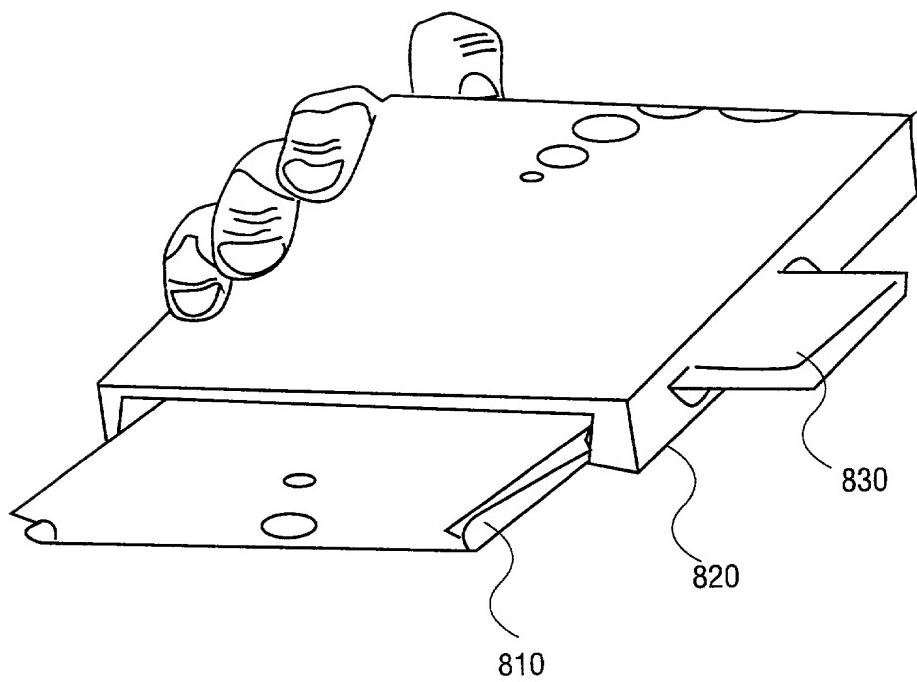


FIG. 7C



DIGITAL WALLET AND PRIVACY CARD

FIG. 8

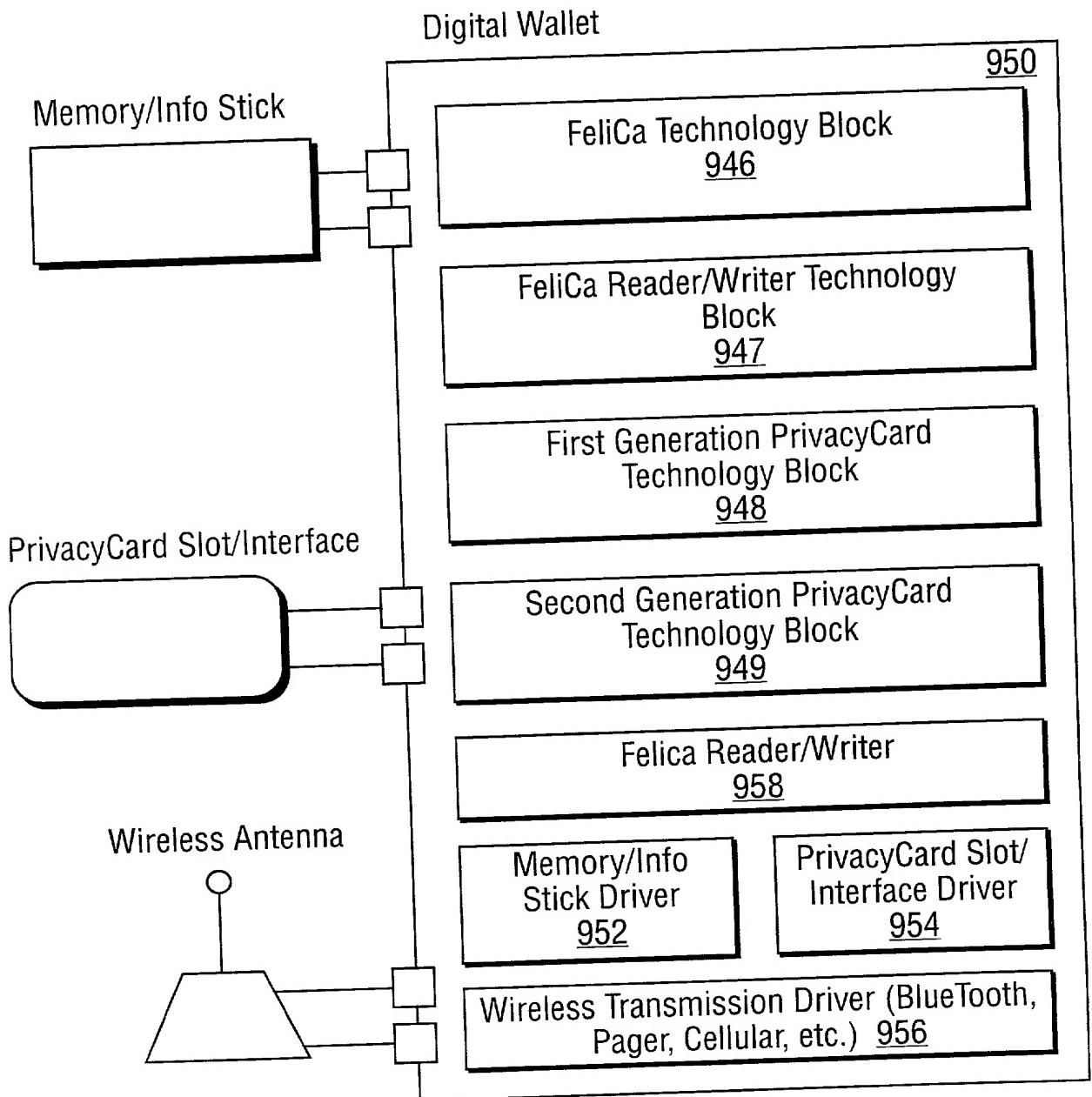


FIG. 9B

Y. D. 2000 - 1999 99 99 99

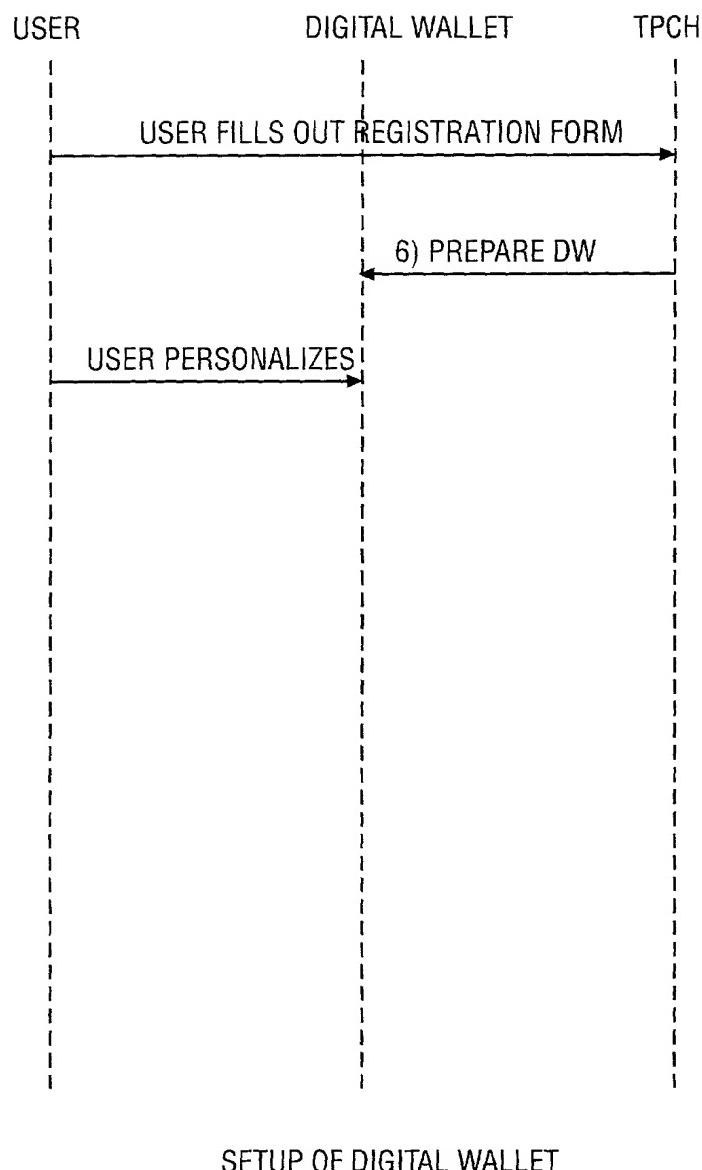


FIG. 10

1101) SUBMIT ELECTRONIC REGISTRATION, PROVIDE FINGERPRINT

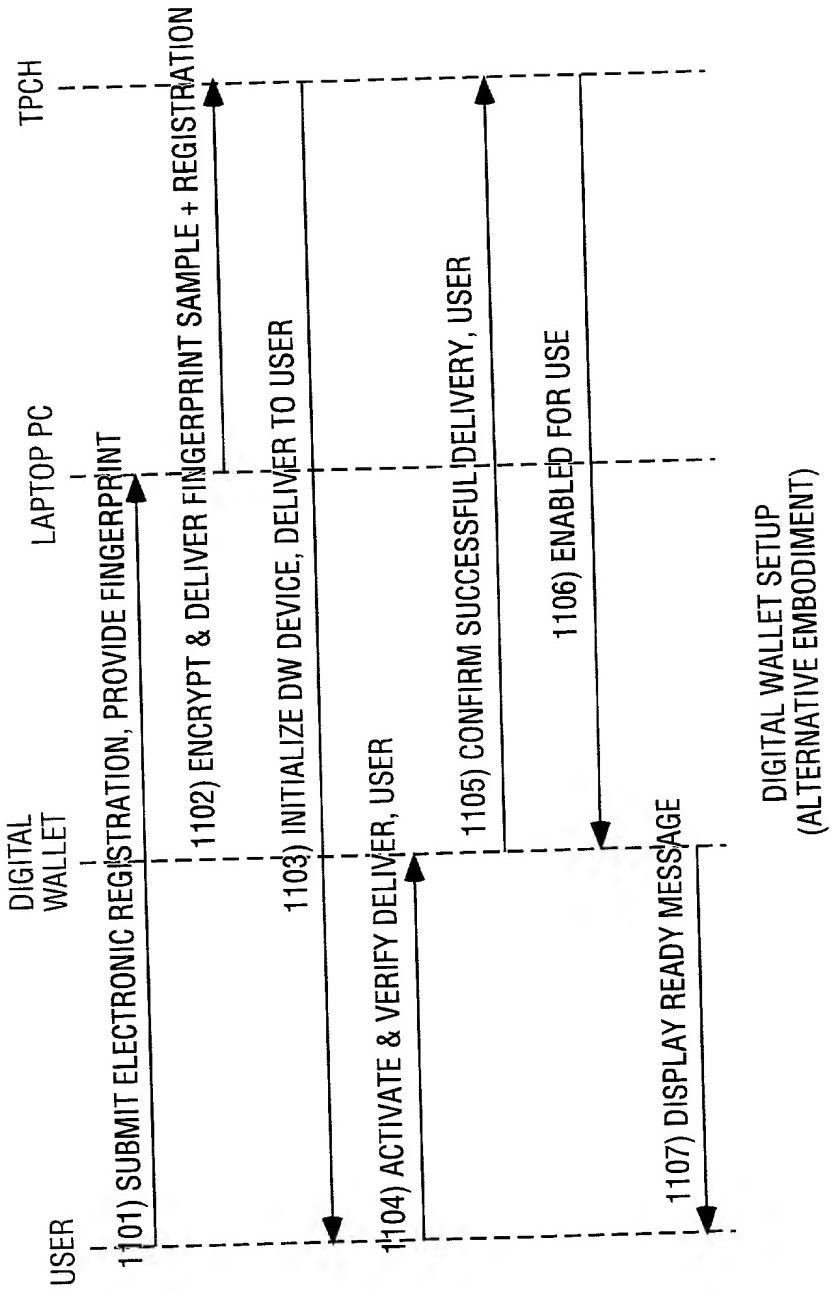
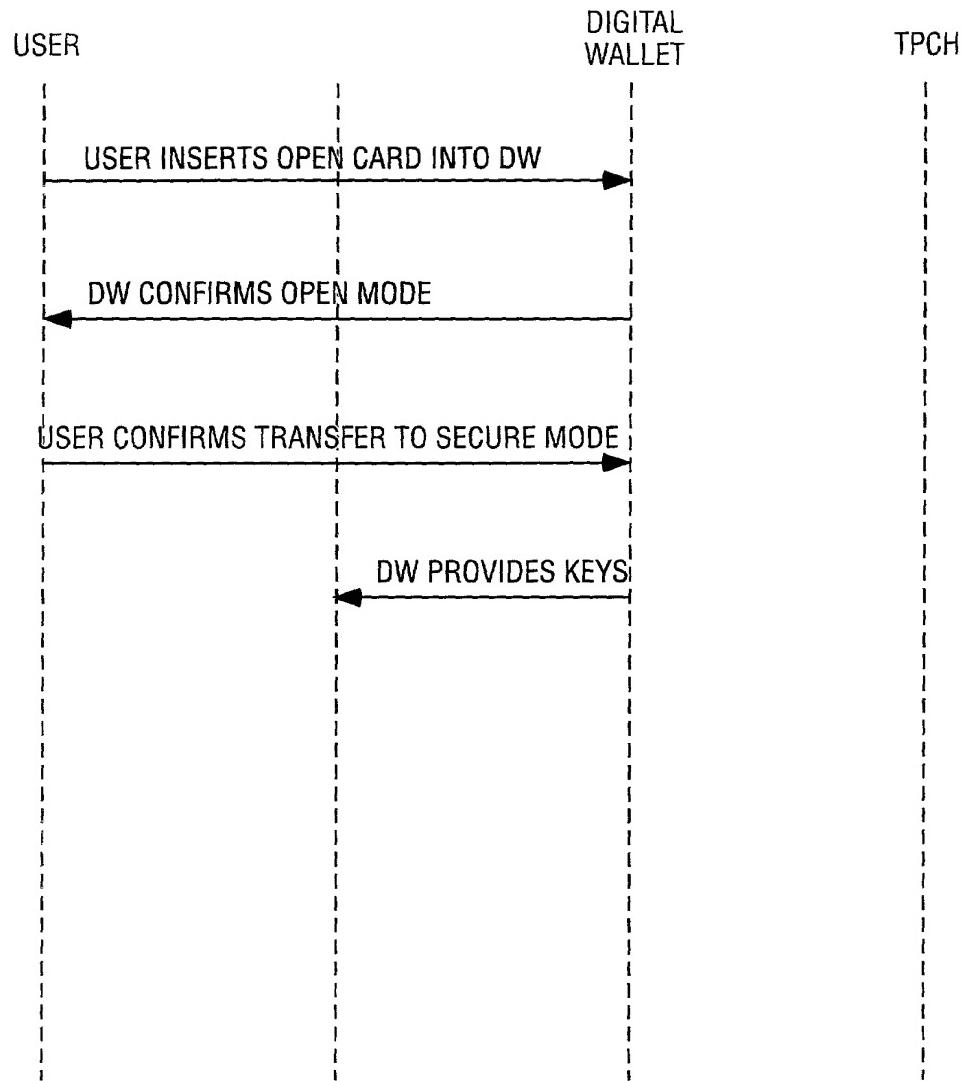


FIG. 11

Open Card Format Specification



CONVERSION OF CARD TO SECURE

FIG. 12

WIRELESS TO DIGITAL
WALLET, ETC. (REQUIRED)

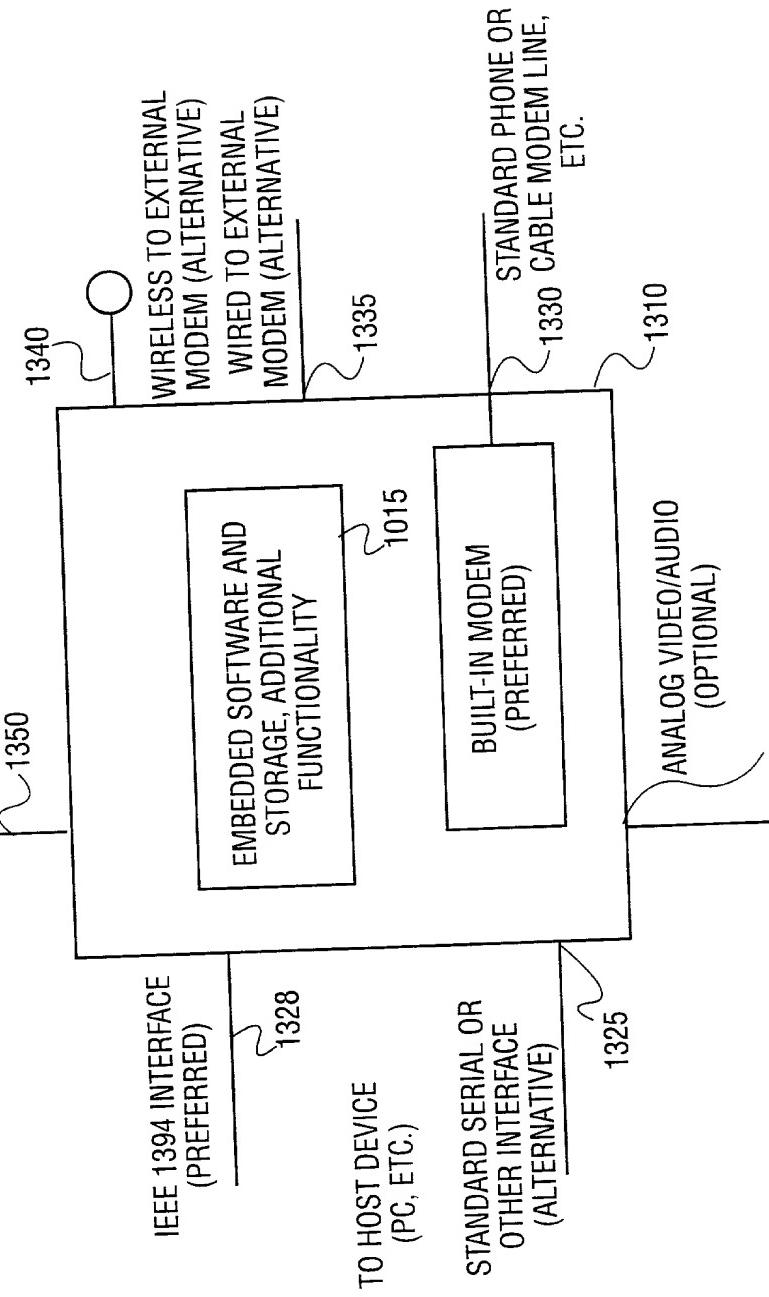


FIG. 13

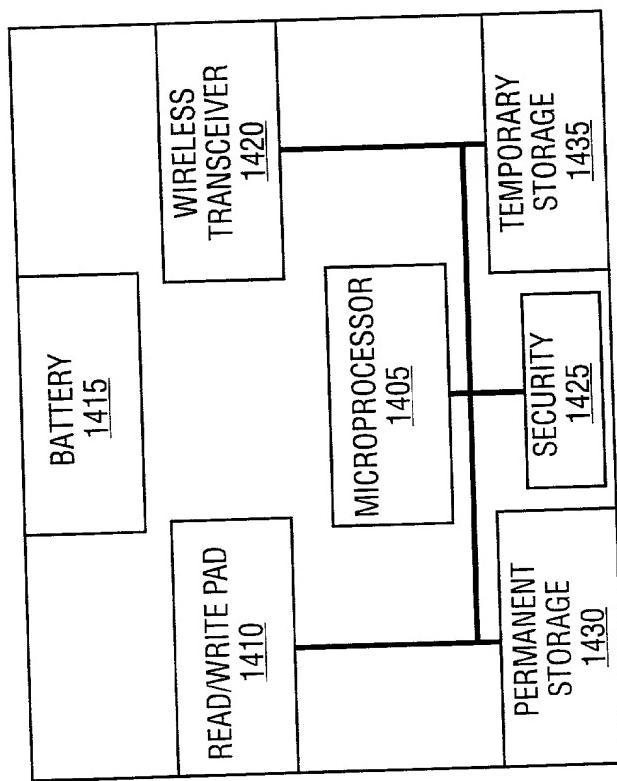


DIAGRAM OF THE MAJOR COMPONENTS OF THE PERSONAL POS, SHOWING THE DATA/ADDRESS BUS INTERCONNECT

FIG. 14

1505
1510
1520
1525

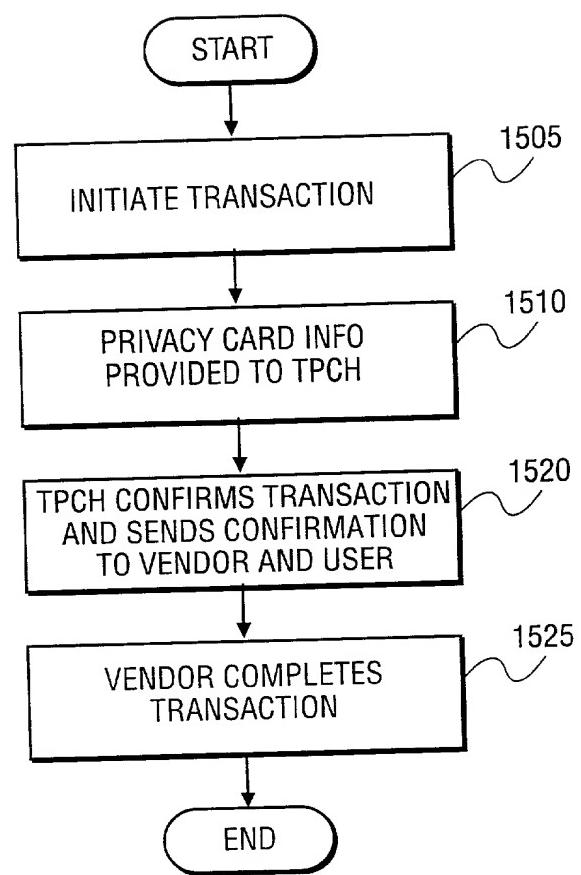


FIG. 15

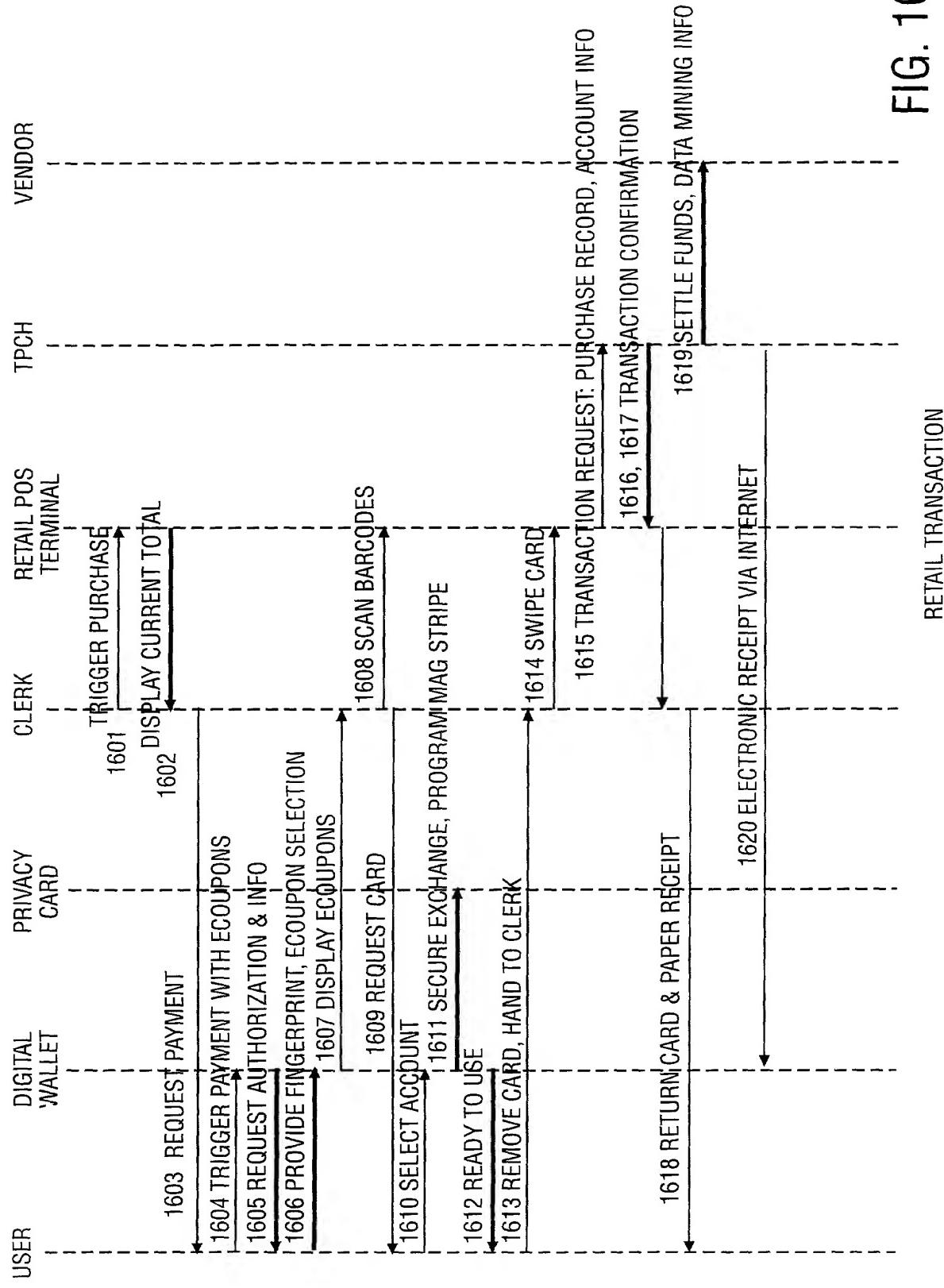


FIG. 16

RETAIL TRANSACTION

FIG. 17

WEB TRANSACTION

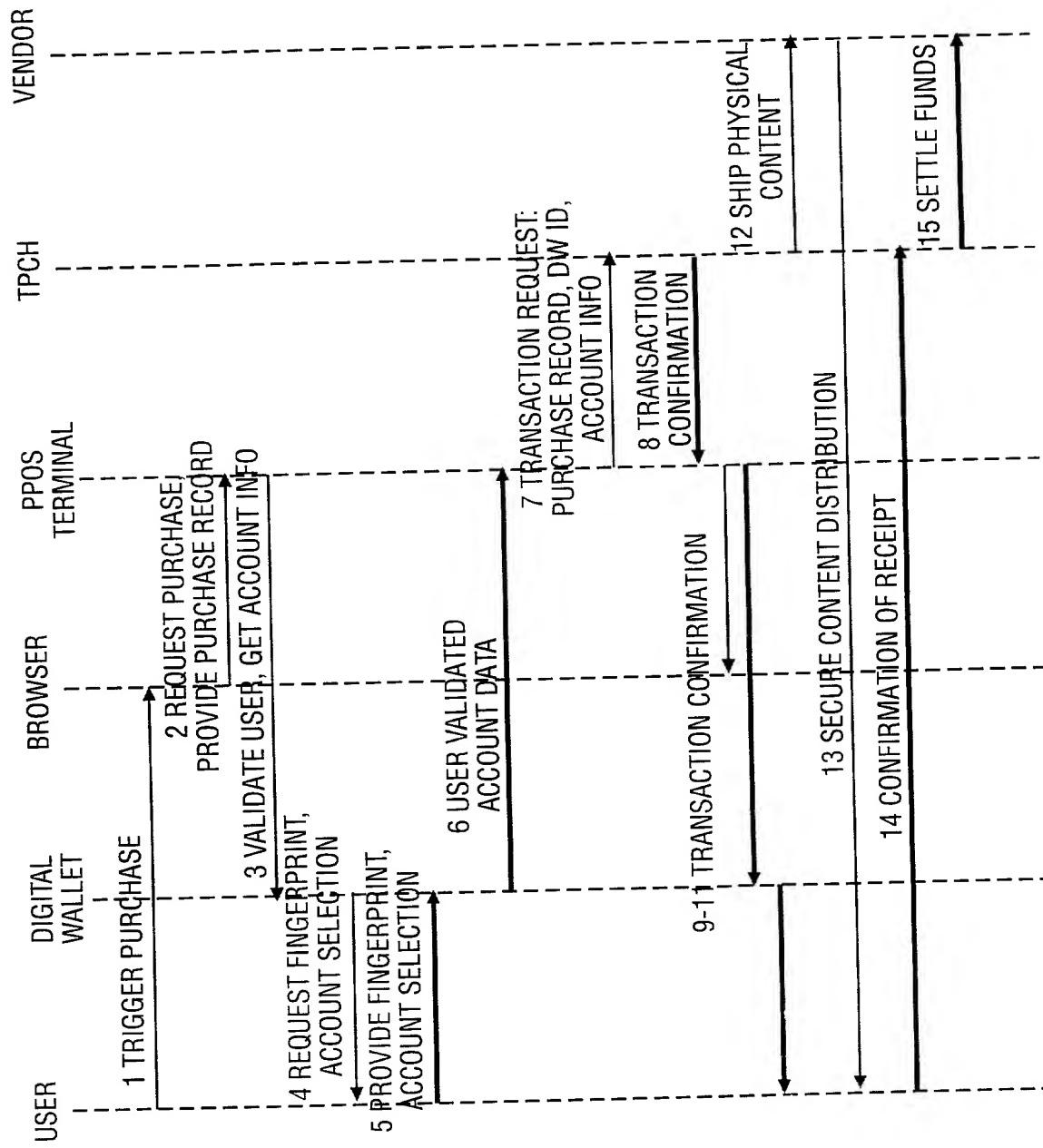
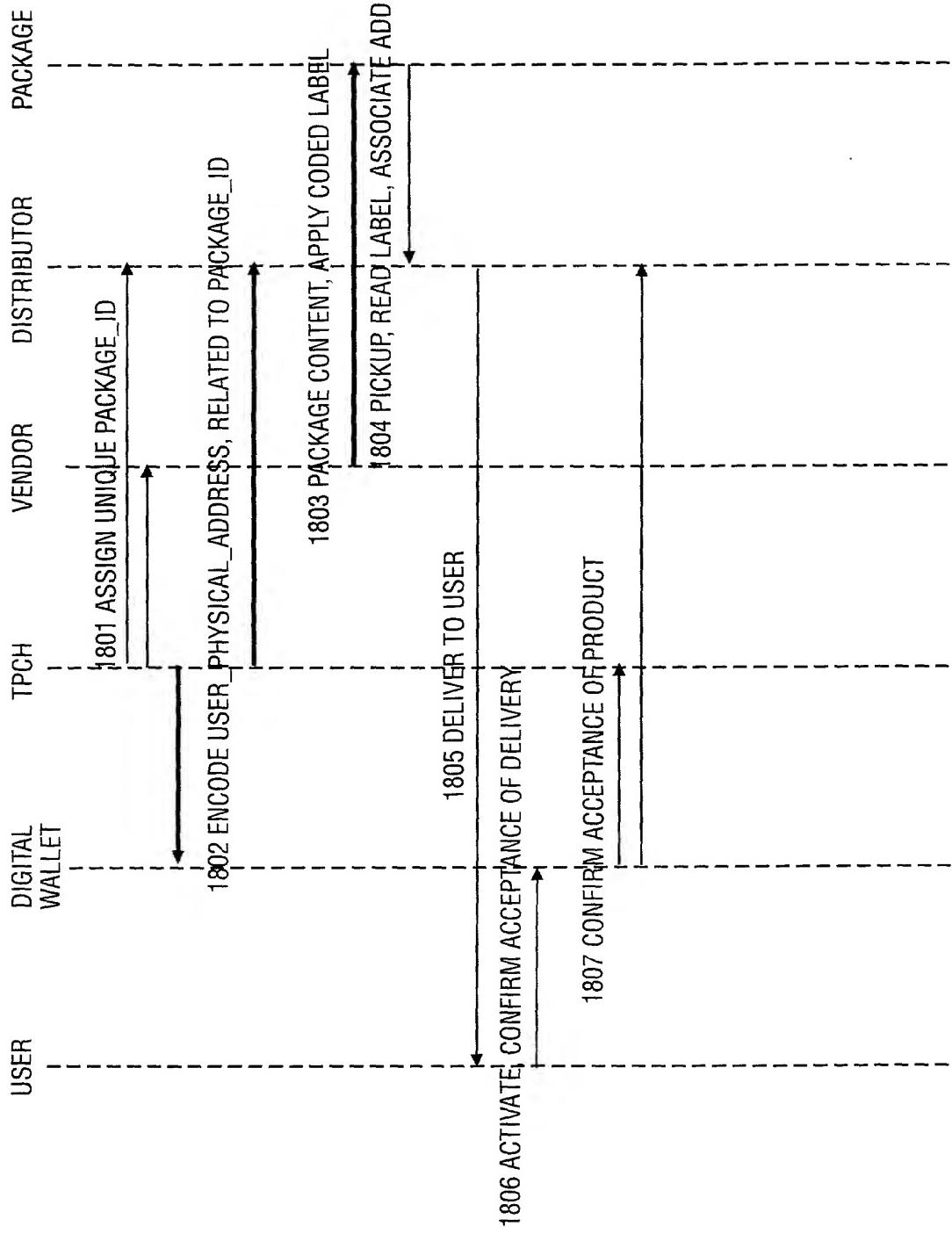


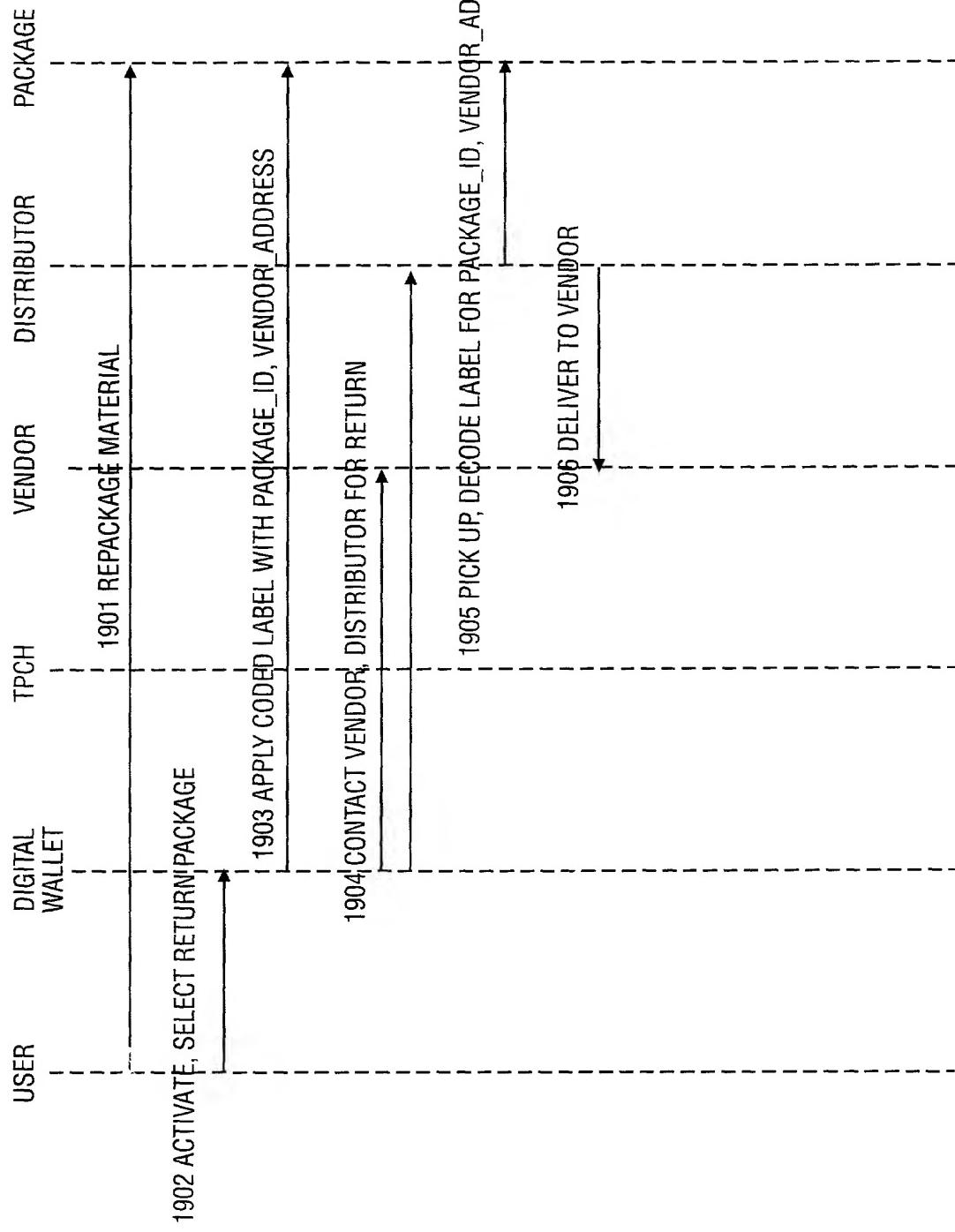
FIG. 18

DELIVERY OF PRODUCT

TPCH VENDOR DISTRIBUTOR PACKAGE



TPCH VENDOR DISTRIBUTOR PACKAGE



RETURN OF PRODUCT

FIG. 19

2001 ACTIVATE, SELECT PURCHASE
2002 REQUEST PRODUCT INFO
2003 RETURN PRODUCT INFORMATION
2004 ISSUE TRANSACTION REQUEST, PROVIDE DATA & DW ID
2005 TRANSACTION DATA & DW ID
2006 DATA MINING, DIRECT MARKETING
2007 FULL MESSAGE OR CONTENT REFERENCE
2008 NOTIFY USER
2009 VIEW CONTENT, RESPOND AS NEEDED

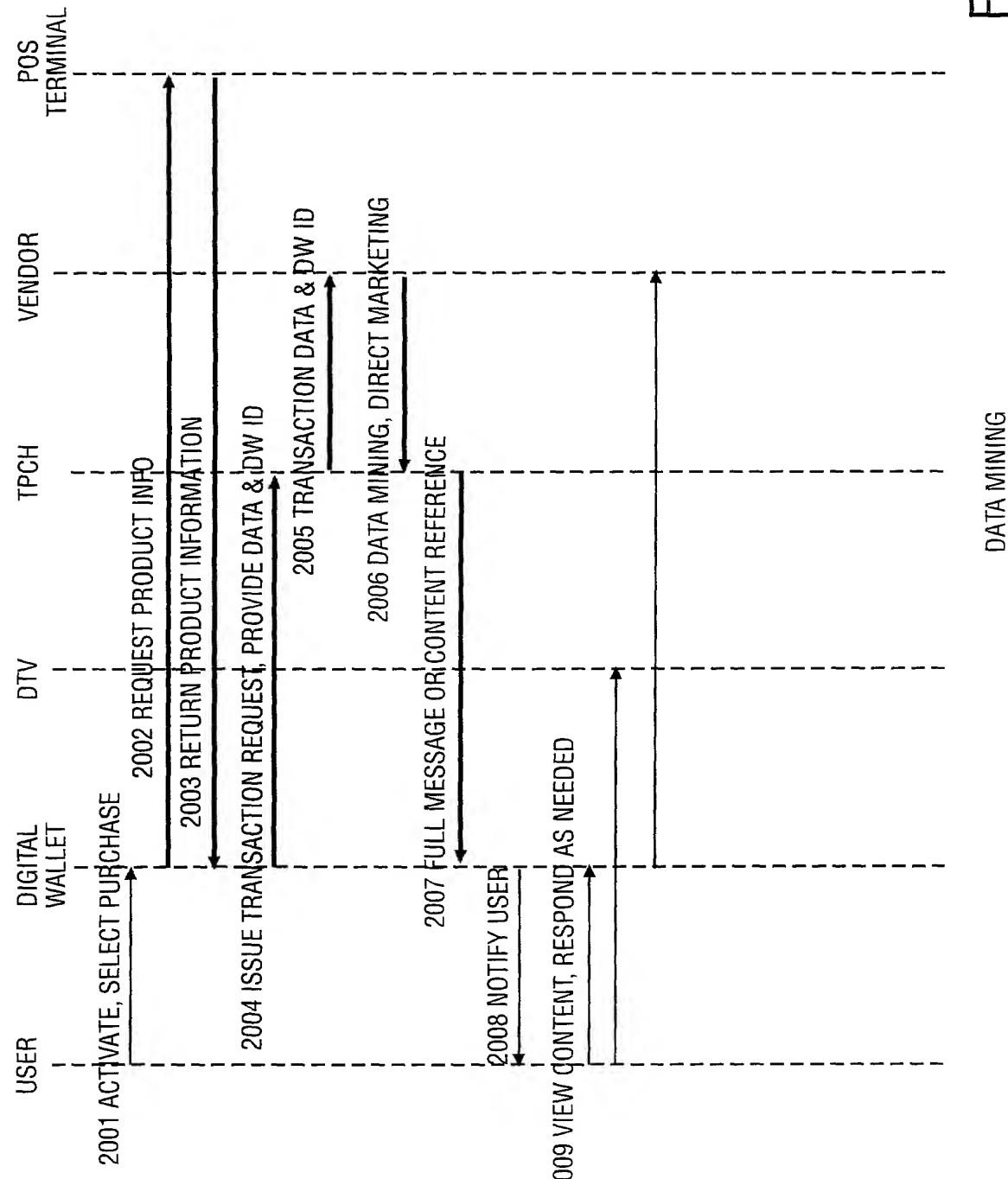


FIG. 20

DATA MINING

100-000000000000000000000000000000

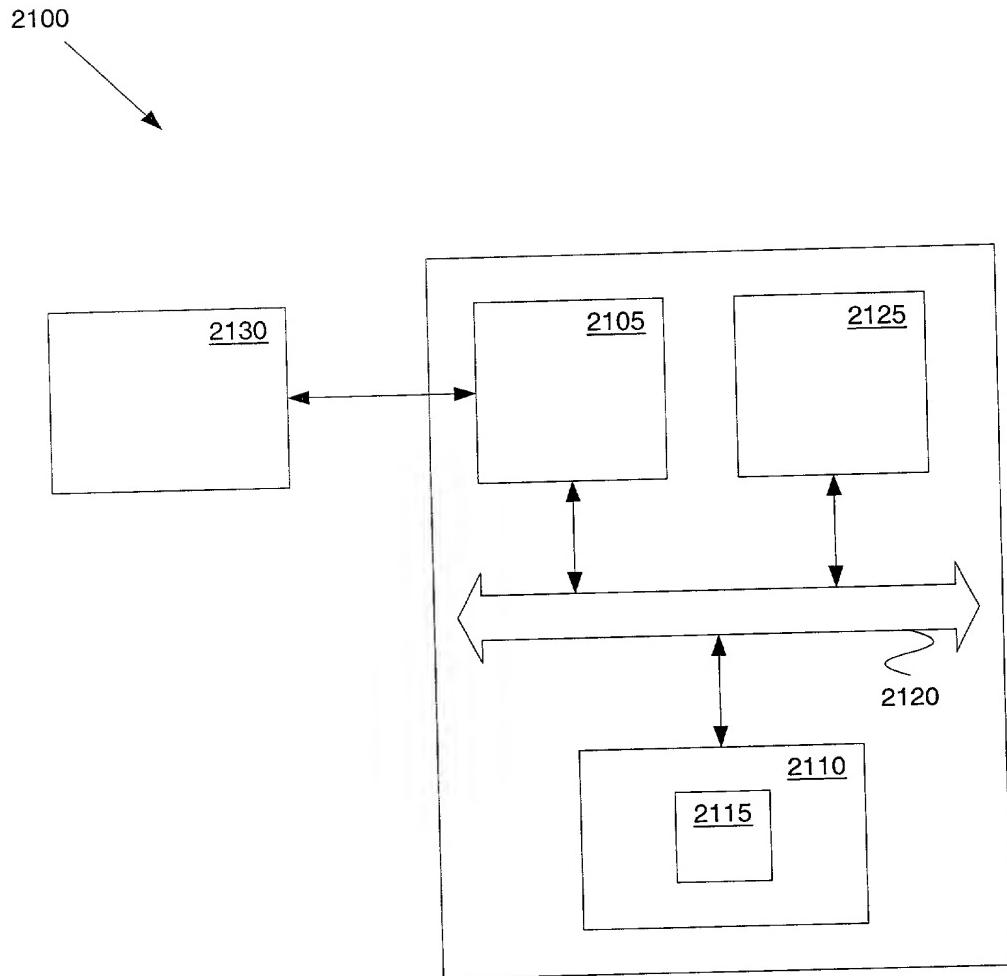


FIGURE 21

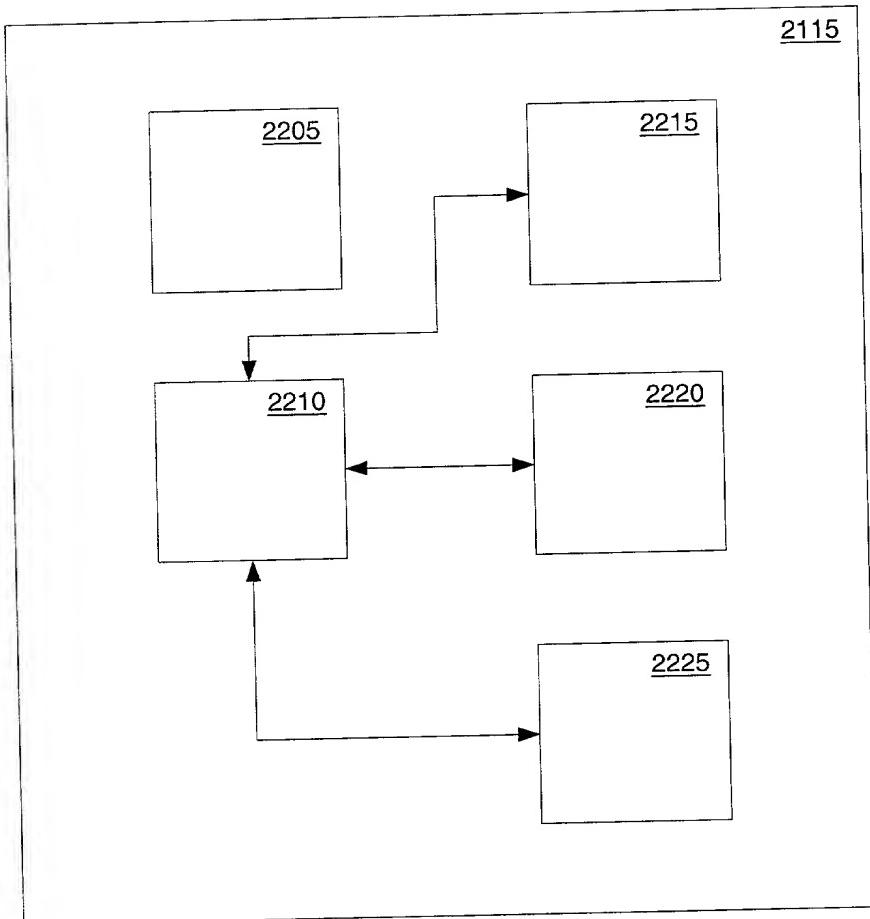
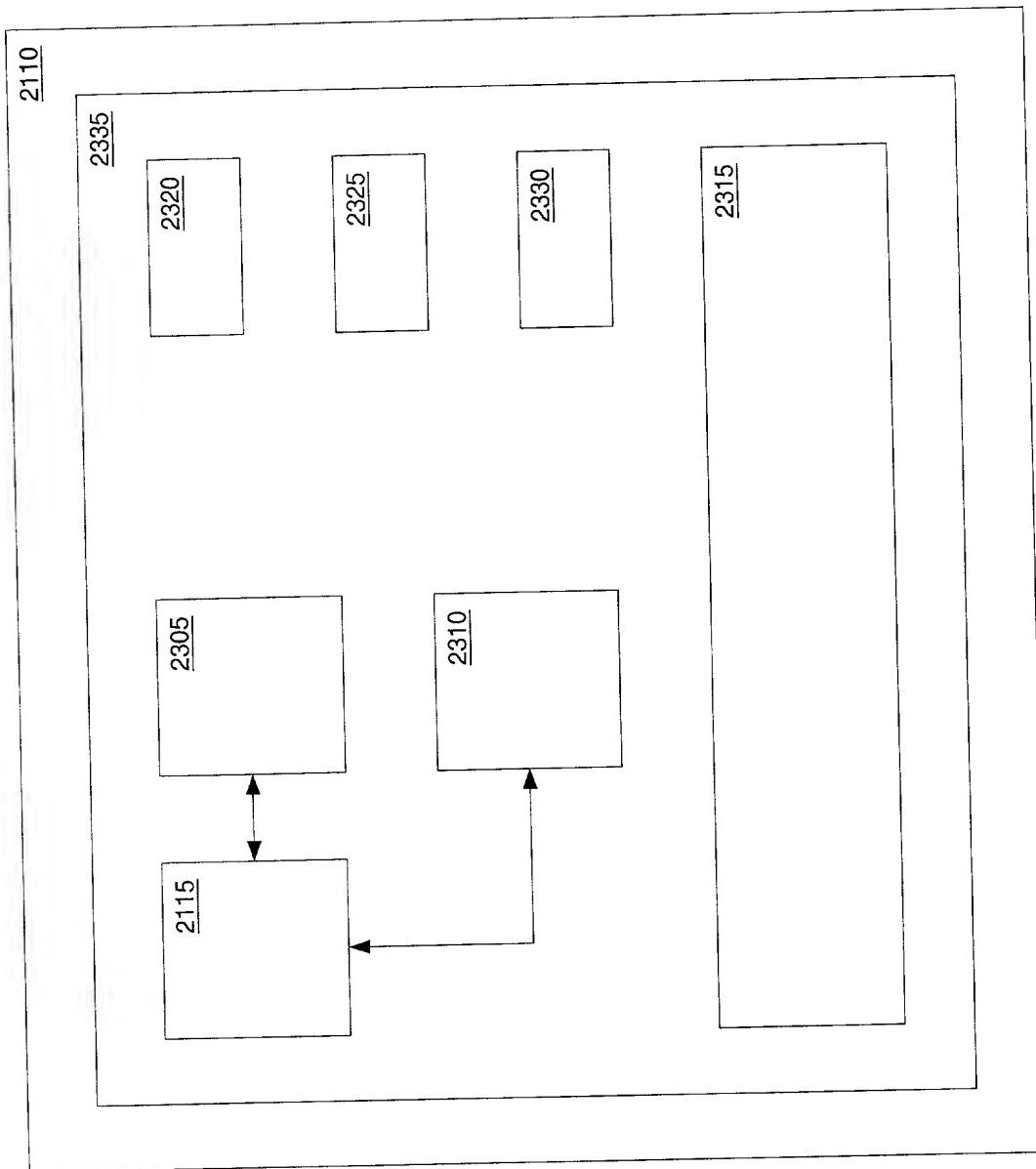


FIGURE 22

FIGURE 23



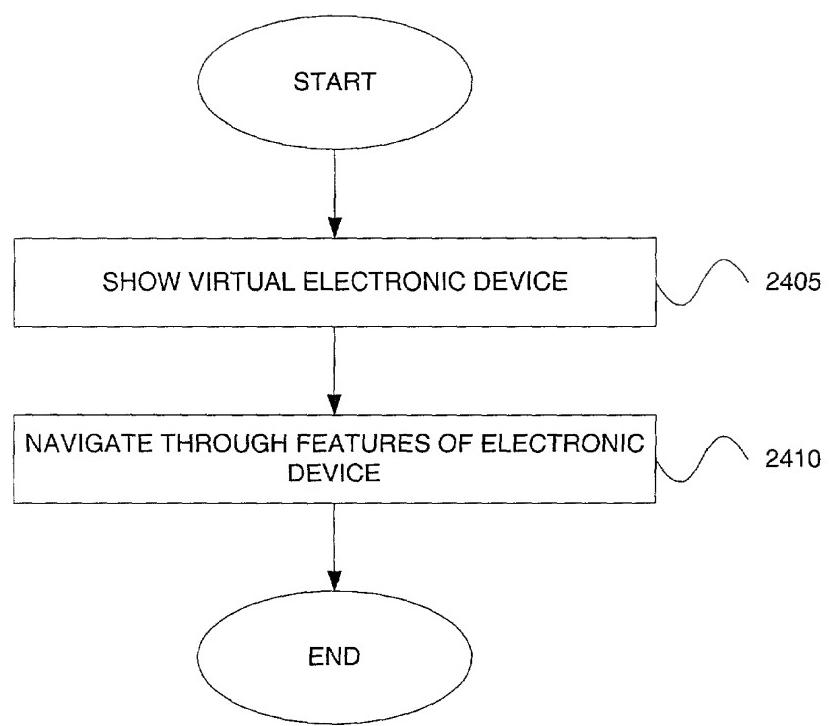


FIGURE 24

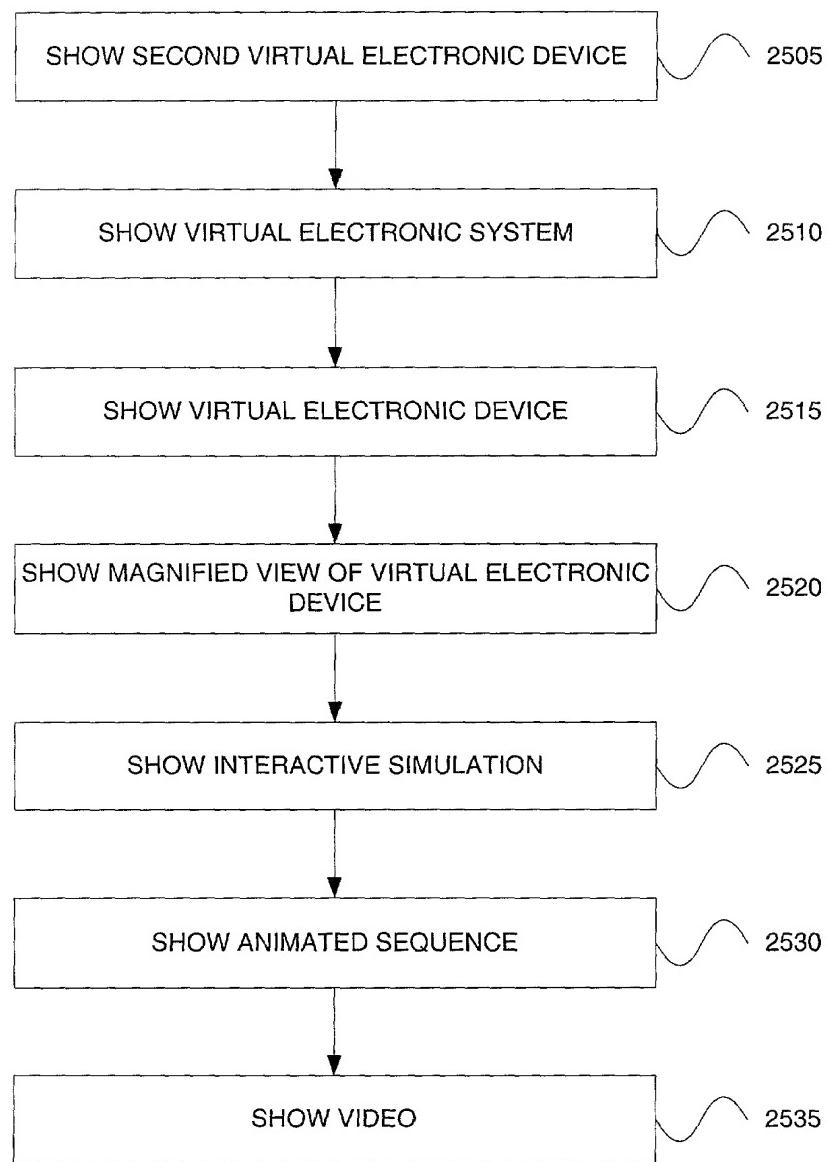


FIGURE 25